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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,136	07/13/2004	Stefan Burstrom	3782-0294PUS1	6105
2292 7590 01/25/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SHERMAN, STEPHEN G	
			ART UNIT 2629	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/25/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/25/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

Application No.

10/501,136

Applicant(s)

BURSTROM ET AL.

Examiner

Stephen G. Sherman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 25-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 25-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on the 11 December 2006.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 and 6-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai et al. (US 6,104,388).

**Regarding claim 1**, Nagai et al. disclose an electronic pen comprising a body (12) (Figures 2-4 show a body 3), a pen stem (14) (Figures 2-4 show a pen stem 1) slidably received in said body (12), and a sensor arrangement (16) (Figures 2-4 show a sensor 5) whose electrical resistance varies in accordance with the amount of force

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applied to the sensor arrangement (16) via the pen stem (14) (Column 5, lines 38-45 explain that the pressure exerted changes the resistance of the resistive material.), characterized in that the sensor arrangement (16) is designed as a modular unit with an electrode element (41) (Figures 2-4 printed circuit board 5d) and a closure element (46) (Figures 2-4 pressure-sensing plate 5c) that are mutually arranged in an essentially electrically insulated initial position (Figures 2-4 and column 5, lines 1-9.), that one of said elements (41; 46) is arranged to receive said force from the pen stem (14) and thereby be urged to an activated position in electrical contact with the other element (46; 41), and that, on relaxation of said force, the force-receiving element (41; 46) is arranged to automatically spring from the activated position back to the initial position (Column 5, lines 1-9 and 30-45 explain that when pressure is not exerted on the pen stem 1, then the sensor remains at an initial position and when the pen is used for input, then pressure is exerted from the pen stem 1 to the sensor arrangement 5 causing the change in resistance, where the pen stem is returned to its initial position upon release of the pressure.).

**Regarding claim 2**, Nagai et al. disclose the electronic pen as set forth in claim 1, wherein the electrode element (41) is integrated with the closure element (46) (Figures 2-4, enclosed case 5e and column 5, lines 35-37.).

**Regarding claim 3**, Nagai et al. disclose the electronic pen as set forth in claim 1, wherein the force-receiving element (41; 46) is cantilevered in said sensor arrangement (16) (Figures 2 and 5a).

**Regarding claim 4**, Nagai et al. disclose the electronic pen as set forth in claim 1, wherein said electrode element (41) and said closure element (46) are essentially planar (Figures 2 and 5a).

**Regarding claim 6**, Nagai et al. disclose the electronic pen as set forth in claim 1, wherein the closure element (46) is the force-receiving element (Figures 2 and 5a).

**Regarding claim 7**, Nagai et al. disclose the electronic pen as set forth in claim 1, wherein the electrode element (41) comprises two electrically separate conductor paths (38, 40) forming an active surface (42) for cooperation with the closure element (46) (Figure 5b shows that there are two separate paths specified by 5f which form an active layer to cooperate with the pressure sensing plate 5c.).

**Regarding claim 8**, Nagai et al. disclose the electronic pen as set forth in claim 7, wherein at least a central surface portion of the active surface (42) has an essentially uniform distribution of said conductor paths (38, 40) (Figure 5B shows that the paths are uniformly distributed.).

**Regarding claim 9**, Nagai et al. disclose the electronic pen as set forth in claim 7, wherein the sensor arrangement comprises a spacer (52) of electrically insulating material which, in said activated position, is arranged to at least partly encompass the active surface (42) (Figure 5b shows that there are spaces in-between the active areas 5f in order to insulate them from one another.).

**Regarding claim 10**, Nagai et al. disclose the electronic pen as set forth in claim 1, wherein the closure element (46) includes a semiconducting material (Column 5, lines 50-56 explain that the pressure-sensing plate 5c is made of a pressure-sensing resistive element, where it is possible to obtain an electrical signal, which means that the material would need to be semi-conductive material.).

**Regarding claim 11**, Nagai et al. disclose the electronic pen as set forth in claim 1, wherein the closure element (46) includes a pressure-sensitive material (Column 5, lines 50-56 explain that the pressure-sensing plate 5c is made of a pressure-sensing resistive element.).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 5 and 12-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. (US 6,104,388).

**Regarding claim 5**, Nagai et al. disclose the electronic pen as set forth in claim

1.

Nagai et al. also disclose wherein the sensor arrangement (16) comprises a sheet substrate (36) with an electrode area formed thereon (Figures 5a and 5b printed circuit board 5d.).

Nagai et al. fail to teach of the substrate (36) being bent such that a closure area and the electrode area form said closure element (46) and said electrode element (41), respectively, however, it would have been an obvious design choice to make the closure element and the electrode element out of a single substrate instead out of two separate pieces in order to reduce manufacturing costs.

**Regarding claim 12**, Nagai et al. disclose the electronic pen as set forth in claim 1, further comprising a force-transmitting element (34) (Figure 5a item 5a) which is attached to one end of the pen stem (14) and has a surface (82) for cooperation with the force-receiving element (41; 46) (Figures 2-4 show that item 5a is attached to the end of pen stem 1 and has a surface which contacts pressure-sensing plate 5c.).

Nagai et al. fail to teach that the force-transmitting element has a rounded abutment surface, however, it would have been an obvious design choice to make the surface rounded instead of flat depending on the performance desired by the device.

**Regarding claim 13**, Nagai et al. disclose the electronic pen as set forth in claim 12.

Nagai et al. fail to teach wherein the force-transmitting element (34) is made of an elastic material, however, it would have been an obvious design choice to make the surface rounded instead of flat depending on the performance desired by the device.

**Regarding claim 14**, Nagai et al. disclose the electronic pen as set forth in claim 12, wherein the force-transmitting element (34) defines a blind hole (84) which is adapted to receive said one end of the pen stem (14) and whose peripheral wall has at least one longitudinal groove (88) (Figures 2-5 show that operation shaft 5a receives pen stem 1 through the hole defined by element 4, which has a longitudinal groove as shown in Figure 3.).



**Regarding claim 15**, Nagai et al. disclose the electronic pen as set forth in claim 14, wherein the force-transmitting element (34) comprises an insert (86) which is arranged over the end wall of the blind hole (84) (Figures 2-5 show that element 5b is arranged at the end of 5a.).

Nagai et al. fail to teach wherein the insert is made of a hard and durable material, however, it would have been an obvious design choice to make the surface rounded instead of flat depending on the performance desired by the device.

**Regarding claim 16**, Nagai et al. disclose the electronic pen as set forth in claim 15, wherein the insert (86) on its surface facing the blind hole (84) is provided with at least one depression (90) that extends from a central portion of said surface and connects to said longitudinal groove (88) (Figures 2-5a show that element 5b connects to 5a which is connected to the groove.).

**Regarding claim 17**, Nagai et al. disclose the electronic pen as set forth in claim 12, further comprising an elongate holder (18) defining a first and a second chamber (54, 56), wherein the sensor arrangement (16) is mounted in the first chamber (54) and the force-transmitting element (34) is slidingly received in the second chamber (56) for longitudinal movement into the first chamber (54) against the spring action of the force-receiving element (41; 46) (Figure 3 shows a first chamber defined by element 4 and a second chamber defined by element 5e, where 5a is slidingly received in element 4 and

moves between element 4 and element 5e based upon the pressure exerted upon pen stem 1.).

**Regarding claim 18**, Nagai et al. disclose the electronic pen as set forth in claim 17, wherein the holder (18) comprises a lug portion (60) which is formed between the first and second chambers (54, 56) to limit the movement of the force-receiving element (41; 46) away from the other element (46; 41) (Figure 3 shows that element 5e limits the movement of the elements.).

**Regarding claim 19**, Nagai et al. disclose the electronic pen as set forth in claim 17, wherein the holder (18) defines a mounting opening (68) which at least partly is defined by flexing sidewall portions (64) that allow insertion of the force-transmitting element (34) into the second chamber (56) and limit its lateral movement therein (Figure 3 shows that element 5e limits the lateral movement of element 5a.).

**Regarding claim 20**, Nagai et al. disclose the electronic pen as set forth in claim 17, wherein the holder (18) comprises a guiding element (80) for cooperation with a complementary guiding element on the body (12) (Figure 3 shows that element 4 guides the pen stem 1.).

**Regarding claim 21**, Nagai et al. disclose the electronic pen as set forth in claim 17.

Nagai et al. fail to teach wherein the electrode and closure elements (41, 46) are interconnected by means of a web portion (48), and wherein the web portion (48) is received in a guiding opening (62) defined in a sidewall portion of the first chamber (54), however, it would have been a matter of design choice to make the electrode and closure elements interconnected by means of a web portion depending on the interconnect characteristics of the device.

**Regarding claim 22**, Nagai et al. disclose the electronic pen as set forth in claim 17, wherein a contacting opening is defined in a sidewall portion of the first chamber (54), and wherein the electrode element (41) extends from the first chamber (54), through the contacting opening, into abutment against a contacting surface which is formed on the holder (18) for contacting a circuit board (20) arranged in the pen (Figures 5a and 5b show that the electrode element is a circuit board which is provided in an opening at the end of the chamber provided by enclosure element 5e.).

**Regarding claim 23**, Nagai et al. disclose the electronic pen as set forth in claim 21, wherein the contacting opening is arranged opposite to the guiding opening (62) (Figure 4 shows that the guiding opening of element 5e is opposite to the opening where the circuit board 5d is located.).

**Regarding claim 24**, Nagai et al. disclose the electronic pen as set forth in claim

1.

Nagai et al. fail to teach wherein the electrode element (41) comprises a layer of graphite, however, it would have been an obvious design choice to make the electrode layer of graphite depending on the performance desired by the device.


### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang et al. (US 2004/0085286) disclose an input device (Figure 2) that is a pen which inputs data based upon the pressure exerted on the tip of the pen.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

17 January 2006

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER

